

macdonald **FARM** journal



- ★ STORAGE OF GRAIN CORN
- ★ QUEBEC'S AGRICULTURAL MERIT CONTEST
- ★ ULYSSE BERNIER — QUEBEC'S FARMER

OCTOBER 1966

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THE MACDONALD LASSIE

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OUR COVER PHOTO: Ploughing on the farm of Lucien Gosselin of Weedon, Wolfe County.

THE FAILURE OF HIGH SCHOOL AGRICULTURE

Agriculture as a subject of study in the Protestant High Schools of Quebec has failed. The unpleasant truth cannot be denied. This past June, only five students, all from one school, wrote the Grade XI Leaving examination in Agriculture. Yet there is a wide demand to include extensive Agricultural courses in the curriculum of the proposed regional schools.

If the cycle is not to repeat itself, if Agriculture is not to be taught again in all schools only to fade out, if the taxpayers' money and the lives of our young people are not to be wasted, then the obscure reasons for the decline must be sought out, and the lessons taught by past experience built into the new system.

Indeed, perhaps the question should first be asked, honestly and without emotion, if Agriculture should have any place in the High School curriculum. If the answer is again yes, then its purpose, or purposes, should be defined precisely, and the content of the new courses firmly imbedded in that purpose.

In his thesis, **A Survey of Teaching Agriculture in Quebec Protestant High Schools**, Bernard Hodge examines twelve possible reasons for the failure of Agriculture. None alone is sufficient to account for the situation. But through these reasons runs a common thread, lack of enthusiasm for Agriculture as a High School subject; lack of enthusiasm by the school boards, by the principals, and by the teachers; lack of support by the government, and lack of interest by the students themselves.

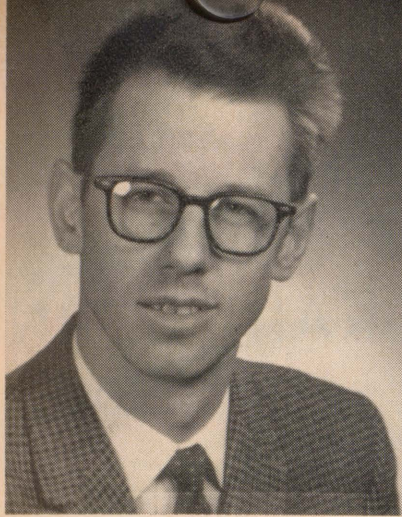
Yet this indifference, we believe, is only the expression of a feeling that lies deeper. It is the unspoken realization that Agriculture, at least as currently offered in the high school curriculum, fails to fill any real purpose in the preparation of students for their future careers.

The aims of the Agriculture course as presently laid down may be grouped into three: an appreciation of modern agriculture, training and practical experience for an occupation in agriculture, and an applied introduction to the specialized study of the sciences related to agriculture. In attempting to satisfy all these three aims, and to cater to three distinct groupings of student interest, the course has failed to achieve any one purpose.

Now with the coming of the regional schools, we have a rare chance to start over. Let us examine very carefully, one at a time, each of these three aims of High School Agriculture, consider realistically the courses, facilities, the teachers and the time required to achieve each, and to test without emotion the validity of each, or indeed any one, in the High School curriculum.

Moreover, in our deliberations, let us not for one moment forget that in the seventeen years since the syllabus was last revised, the word "Agriculture" itself has taken on new dimensions of meaning and a new significance, not only for students who study it as a subject, but for those who hope to find in it their life career.

Walker Riley



BERNARD HODGE

WHY HAS HIGH SCHOOL AGRICULTURE FAILED?

In June, 1966, only five pupils in the English-language High Schools of Quebec wrote the grade-eleven leaving examination in Agriculture. Yet, with the coming of the regional school system, there is a lively renewed interest in the teaching of agriculture in the high schools.

As a candidate for the degree of Master of Education at Bishop's University, Bernard G. Hodge wrote as his thesis, "A Survey of the Teaching of Agriculture in Quebec Protestant High Schools." In it, Mr. Hodge reviews the history of the teaching of agriculture from the founding of the McGill Normal School in 1857, through the Macdonald-Robertson movement early this century, through the era of the school fairs, to the puzzling situation of the present day. He takes a close look at the present high school course, and documents the sharp decline in student participation. Then he offers twelve possible reasons for the situation, and makes his conclusions and recommendations.

Extracts from the preface, and from the section on "Reasons for the Small Percentage of Pupils Taking Agriculture" are condensed below. A copy of Mr. Hodge's complete 200-page thesis is on the shelves of Macdonald College Library. Mr. Hodge, a graduate of Macdonald College, is now principal of Magog High School.

Agriculture was taught in all Protestant elementary schools in Quebec fifty years ago, and in rurals schools to some extent until the 1940's. In 1944 a new course was authorized for use in Grades VIII-XI of Quebec Protestant schools. First taught in Ormstown, later in a total of nine schools over a ten-year period, it is now taught in only one high school, Shawville.

Of the 30,154 high-school pupils in 1960-61, 60 or 0.2 percent were taking Agriculture. This seems to be a surprisingly small percentage of Quebec High School pupils taking Agriculture. Why? Twelve reasons may be considered.

Rural and urban ratio

In Quebec as in the rest of Canada, the rural-urban ratio is definitely widening. It would appear that some schools have had too few Agriculture pupils to occupy the full time of an Agriculture teacher. It is also worth considering that there may be few rural pupils staying on in secondary school because a subject which interests them is not taught.

Government support

Government support, or more accurately, the lack of it, is a contributing factor to the small number of pupils taking Agriculture. The present high school course in Agriculture owes its beginning (1944) primarily to the Provincial Association of Protestant Teachers.

Vocational agricultural education could not benefit from federal government assistance (1945 and 1957) because vocational agricultural education as such did not exist either in actuality

or the planning stage in spite of the official course name, "Vocational Agriculture."

School board support

Lack of school board support, both local and central, would appear to be a cause for the small percentage of pupils taking Agriculture in Quebec. In the province as a whole, many of the school boards were so apathetic toward Agriculture that survival of the course in these cases seemed to depend almost entirely on the principal and the ability of the Agricultural teacher to make the course interesting enough to attract pupils. If an agricultural education program is to prosper, it must have the interest and support of the local school board.

Parental and community support

It would appear that the support of the whole school community is a necessity; and that the lack of it has been a cause for the small percentage of pupils taking Agriculture in Quebec. Although the co-operation of the pupils' parents with home projects work is essential, it is important for the community as a whole to feel that agricultural education at the high-school level is a necessity. The agricultural program will then not collapse if a new agriculture teacher is unsuccessful, or the school board meets financial problems.

Availability of qualified teachers

In general, it would appear that the availability of Agriculture Teachers

(continued on page 8)



R. G. WINFIELD

STORAGE OF GRAIN CORN

by R. G. Winfield, P. Eng.

Grain corn production in the climatically suitable areas of Quebec has been doubling each year for the past four years. The best guess is that the area may reach 10,000 acres this year.

Problems of harvesting and storage limit an even more rapid expansion. In this article, from a talk given at the Kemptville Feed Production Day, Agricultural Engineer Ralph Winfield, Western Ontario Agricultural School, offers some practical suggestions.

Dr. Robert Brawn, Professor of Agronomy and Genetics at Macdonald College, specializing in corn breeding, points out that, in Quebec, moisture in the corn ear usually does not fall below 30% before harvest. This fact should be read into Mr. Winfield's recommendations.

If grain corn is to be fed to livestock then we must consider a) the animal's needs and b) the costs of the various types of harvesting, handling and storage equipment.

Animal nutritionists say that high-moisture corn (HMC) is just as good if not better than dried corn. In general the HMC is equivalent to the dried corn, pound for pound. Therefore, it seems rather uneconomical to spend money and time drying corn if the animals can make use of the water. I do not know of any cheaper feed.

High-moisture corn can be stored in one of two forms, shelled corn or corn-and-cob meal, if it is to be fed to cattle. If the HMC is to be fed to hogs it should be stored as shelled corn. The cob, in the corn-and-cob meal, makes a contribution to the energy and fiber content of the ration and will help maintain the fat test when fed to dairy cows on a high-grain ration.

While the corn-and-cob meal will require more storage volume, approximately 50%, it can be harvested with a picker husker and ground with a stationary grinder or a recutter on the forage blower used to put it in the silo. However, machines which pick and grind in the field are also available.

Both forms of HMC can be stored in a good tower silo. The silo must be free of cracks and must have more reinforcing steel in or around it than is necessary for corn silage, because of the higher wall pressures created by shelled corn. The doors must be sealed with caulking compound or a sheet of

polyethylene and the top should be capped to keep spoilage to a minimum. The silo must be sized so that a reasonably thick layer of corn (3" — 4") is removed each day, particularly in warm weather. A number of farmers in Western Ontario are using sealed concrete silos successfully for their hog operations where the daily demand for shelled corn can vary. These silos are made of poured concrete but may be made of concrete staves. The big difference between these silos and the conventional silos is that they are constructed without doorways and a reinforced concrete top is used. The silo is completely sealed and an epoxy resin is sprayed on the inside. Shelled corn is taken off at the bottom with an auger and a small amount of air is let in at the top. One problem with this type of storage is that it is specialised and is not adaptable to changing uses.

Let us look at some of the advantages of storing corn at high moisture:

- 1) The corn can be harvested earlier, thus reducing field losses.
- 2) The drying rate does not limit the harvesting rate.
- 3) Drying expenses are eliminated.
- 4) Initial storage cost is competitive with dried corn storage or cribs.
- 5) The HMC can be mechanically put into and removed from storage.
- 6) The HMC can be processed into storage eliminating daily or weekly processing.

There is one disadvantage that should

be mentioned at this time. When the HMC is removed from storage it must be fed within a day or two to avoid spoilage.

DRYING:

If you do not store the corn at high moisture it must be dried. One advantage in drying the corn is that it can be sold and this makes the farm operation more flexible.

One method of drying the corn is to husk it and place it in a crib and let the fall winds do the drying. This is the most economical if the corn acreage is small.

The other method is to artificially dry the shelled corn with heated air. If 30% corn is artificially dried to a safe storage moisture, the shrinkage by weight will be at least 18%. In addition to the shrinkage, the cost of owning and operating a drier will be about 12 to 18 cents per bushel depending on annual volume and the cost of burner fuel, regardless of the drier type.

We are recommending that a farm operator have at least 10,000 bushels of corn annually before he considers purchasing a drier and shelled corn storage. If he has less than 10,000 bushels annually he should consider having the corn custom-dried at a local elevator, if it has drying facilities, or picking the corn and storing it in a crib.

If any of you are considering building a corn crib I have a few suggestions for you:

- 1) Keep the crib width down to 4 or 5 feet if the corn is above 22%

moisture. (4 feet maximum in Quebec. Ed.)

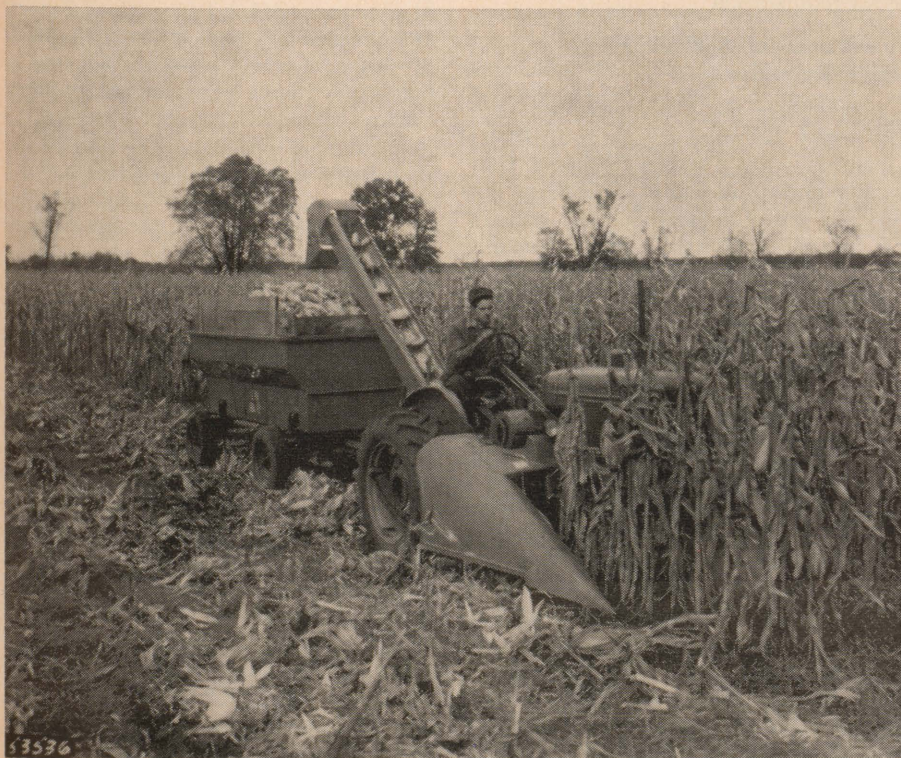
- 2) Build the crib on a concrete base to discourage rodents from nesting.
- 3) Use a wire mesh (2" x 2") on the sides to allow maximum air flow through the crib.
- 4) Locate the crib away from buildings or fence rows to insure maximum air flow.
- 5) Make sure the corn is well husked and remove all shelled corn to insure maximum air flow.
- 6) Single cribs are preferable for higher moisture corn.

A good corn crib can be built for 30 to 40 cents per bushel. However, this figure can be reduced if farm labour is available for erection. As a guide for corn-crib size, multiply the volume in cubic feet by 0.4 to give the estimated capacity in shelled bushels, e.g. a crib 6 feet wide and 14 feet high will hold the equivalent of $6 \times 14 \times 1 \times 0.4 = 33.6$ shelled bushels per foot of crib length.

If you are seriously considering field shelling and drying, here are a few facts and figures you should know:

- 1) Your farm electrical service will probably have to be increased to a 100 or 200 ampere service to operate the drying and handling equipment.
- 2) A picker sheller requires at least a 4-plow tractor to operate at full capacity
- 3) A corn head for a combine will cost at least \$1,000 per row.

A familiar scene in corn-growing areas of North America this fall. Picture courtesy of Allis-Chalmers Mfg. Co., Farm Equipment Division.



Ear corn being chopped and blown into the silo. Optimum moisture content is 25% to 30% in the kernel.

- 4) The dried corn must be aerated during storage to keep it in condition.

Before you buy any drying equipment be sure you consider all the costs involved.

Another consideration is drier operation. A drier, regardless of type, is not an easy piece of equipment to operate. It would be advisable for you to talk

to a number of drier operators before you attempt to operate a drier. You have a set of conditions which is unique. Most driers have a rated capacity at 10 points moisture removal. If we double the amount of moisture that must be removed by drying corn of over 30% kernel moisture, the drier capacity will be reduced to less than 50% of rated capacity. Problems of excessive shrinkage and reduced air flow due to damaged kernels will be the cause.

Regardless of the type or the adjustment of the field sheller, moisture contents in excess of 30% will give poorer quality of corn than that harvested and dried from 26 or 28% moisture.

IN SUMMARY:

I would like to emphasize a number of points:

- 1) If you have less than 10,000 bushels annually, you should consider cribbing the corn if there is a chance you might decide to sell it, or you should consider storing it as HMC if you intend to feed it to livestock.
- 2) If you decide to artificially dry the corn you should look at a number of drying setups and talk to the operators before you invest any money in drying equipment.
- 3) I would suggest that you watch the developments and the experiences of a number of people who are storing high-moisture barley for livestock feed. High-moisture barley (26-30%) can be harvested earlier, with a conventional combine, and stored in a good tower silo.

D. H. A. S. — A PROGRESS REPORT

In the eight months since it was officially inaugurated at the Salon of Agriculture last spring, the Dairy Herd Analysis Service of Macdonald College has firmly established itself as part of the Quebec farm scene. On May 1, the first herd was enrolled. The month of August saw the hundredth herd signed on. New herds are joining the program at the rate of five per week.

The success to date has been due in no small measure to its recognition by top dairymen as a powerful tool in dairy herd management, and to the enthusiastic endorsement of the program by the Agronomes of the Department of Agriculture and the agricultural industry.

Five operating areas are now established within a hundred-mile radius of the College. Each has its own supervisor, most of whom now live in their service area. Norman Campbell,

who is in charge of the field program, personally looks after the counties of Vaudreuil, Soulange, Two Mountains, and Argenteuil. Roger D'Aoust's territory is Huntingdon, Beauharnois and Chateauguay, while Marcel Couture looks after St. Hyacinthe, Vercheres, Bagot and Drummond counties. Michael Toupin a diploma graduate of Macdonald like the rest of the field staff, is responsible for LaPrairie, Napierville, St. Jean, Iberville, and Missisquoi counties. A fifth area — Brome, Shefford, Sherbrooke and Richmond — will have its own supervisor named by the time this appears in print.

Of all the data provided by the monthly report, supervisors report the highest enthusiasm so far is for the feed recommendations. A significant change has been noted to heavier feeding in the first part of a cow's lactation, and a compensating saving in the latter

half. Wide variation in the fat test of individual cows within herds has shown up. Apparently the cost — about \$100, a year for a 30-cow herd — has not been a deterrent; members seem well satisfied with their investment. Extra time spent by the herd owner has been less than expected — about an hour per month. In practice it lengthens the milking one day a month by twenty minutes. The problem of sampling the nine herds with pipeline milkers has been solved with the introduction of a portable sample which the supervisor rents out for a token fee.

By the time the cows go out to pasture next spring, the evaluation stage will be completed for the first herd enrolled. In the D.H.A.S. program it is from that point that real changes and progress can be expected in herd management.

HIGH SCHOOL AGRICULTURE —

(concluded from page 5)

had very little influence on the number of schools offering Agriculture. At the present time (1965) there are three experienced agriculture teachers teaching subjects other than agriculture. In addition, there are at least four other teachers in the province who have degrees in agriculture from Macdonald College who are teaching subjects other than Agriculture. There are more teachers than vacancies.

Influence of the school principal

It would appear that most principals have no definite feeling one way or the other concerning Agriculture. This has meant that Agriculture was not introduced or in other cases was allowed to disappear in schools where it could have been successful under a principal who felt that it was a necessary subject.

Influence of teachers

It is an accepted fact that teachers have a considerable influence over their pupils. It would seem that teachers have not been doing what they could unless they are seized with the significance of the Agricultural course, and are imparting this enthusiasm to their pupils.

The course of study and school leaving exam

Agriculture as taught in the Protestant High Schools of Quebec is not purely a vocational course, nor a regular university entrance course. Indeed, its position is somewhere between the

two. Although it is termed "Vocational Agriculture", insufficient time is allowed for the course to be truly vocational. On the other hand, it is not universally accepted as a university entrance course, due perhaps to its lack of scientific ground. The Quebec Teachers of Agriculture (from replies to a questionnaire) felt that the course should be more practical in nature and that more time should be devoted to it. This would mean that it could not be used for university entrance purposes, since ten subjects are the usual requirement.

Acceptance of Agriculture as university entrance

Agriculture has been accepted as a University Entrance course by Bishop's University, Sir George Williams University and at Macdonald College, but not for the Arts and Science courses of McGill University. Most teachers say this is not a reason for the small number of pupils taking Agriculture. With the exception of those pupils going on to take Agriculture at Macdonald College, the subject is not studied in high school by pupils intending to go on to University, but rather by those intending to go into some practical form of agricultural work.

Timetable arrangements

No pupil was prevented by timetabling from obtaining a High School Leaving Certificate in addition to taking Agriculture. The syllabus recommends approximately four forty-minute periods a week for Agriculture and this has usually been the practice. It would

appear that timetable arrangements have not influenced local authorities concerning the offering of Agriculture as a high-school subject, except in a secondary way as a result of the priority of such university entrance courses as Biology, Physics and Geography.

Equipment for demonstration and project work

The Protestant high schools offering Agriculture in Quebec have had the bare minimum of equipment. The only grant available has been the \$2,000. per school offered by the Quebec Department of Agriculture. The lack of this equipment probably has meant that some pupils have not taken Agriculture.

Popularity rating of agriculture

Some pupils do not wish to take Agriculture because they have learned agriculture has a low social position. Other pupils, no doubt the majority, know very little about the fields of employment in Agriculture and related fields. The subject of Agriculture is not considered to be of much importance by the press, by the Dept. of Education, by parents, by teachers, by principals, and as a result, by pupils. The main characteristics of farming are considered to be lack of financial reward for effort expended, an uncertain future, little education required, dirty work, and lack of glamour and adventure.

Men have tilled the soil for centuries, and until recently, no great amount of education was felt necessary. This feeling still exists, and is held, surprisingly enough, even by some farmers.

FOOD SERVICE MANAGEMENT A VITAL PART OF THE FOOD INDUSTRY

by Prof. Diane A. Raymond
School of Household Science.

When someone uses the term "Food Industry" in your hearing I'm sure a very definite picture takes form in your mind's eye, but I am equally sure the picture you see, the picture I see and the picture someone else sees, can be quite different. In fact, one might wonder if we are even thinking about the same thing. Why is this so? Well it is easily explained. If I am a farmer or in the farm-oriented community I see the food industry involved in basic production of food, grain, animals, poultry, etc. I visualize farmers and suppliers of farm needs and the sale of this basic food as representing to me, the food industry. So it does, but suppose I am a food processor, part of a packing house, cannery, freezer plant or other food processing operation, then to me this is the food industry. And so it is; yet further suppose I'm a distributor responsible for seeing that the foodstuff raised and processed in one part of the country is distributed across the country or the world, this is my version of the food industry and I'm right. Or again I may be a retail-food store operator fulfilling the ultimate objective of putting the food in the hands of the consumer; isn't this the food industry? Right, it is; but wait, there's another group, those who provide the hundreds of thousands of meals consumed daily by Canadians, away from their homes. Surely this is the food industry. Each of these individuals has justification for his view, for his assumption that they are the food industry, but it would be more accurate for each to say, "I am a part" of this immense industry, one of the three largest in Canada. My part could not function as well as it does were it not for the other parts; no one part can stand alone, all parts are interdependent.

It is in this context that I would like to discuss the last-mentioned part of the food industry — that section identified as the "food service" part of the food industry. This is a very large and growing segment of the industry. The demand for or the need to provide meals for larger and larger numbers of people in places other than the family dining-room is tremendous now and shows no sign of declining. When we speak of the

food-service segment of the industry we mean any operation where food is prepared and served in quantity amounts. This includes commercial operations such as restaurants, hotel dining-rooms, snack-bars, airline or rail and ship feeding, etc., where a primary objective is to have a financially profitable business. But it also includes the operation of a food service in ins-



DIANE A. RAYMOND

titutions, in the armed services, camps, schools, university and colleges and in hospitals, where, while sound financial policies are observed, the necessity of providing a needed service is placed ahead of financial gain.

These operations have grown in complexity and size as well as in numbers. In the past it was possible for a single individual to own and manage a small restaurant. Now the single operator is rare and becoming an anachronism. More and more food-service operations are now being managed for owners by teams of trained experts.

We are still asked why a person who intends to have a management career in food service needs a university education. The inquirer usually is someone who knows one or more quite successful food-service operators who started as dishwashers or cooks and worked their way up. In asking the question they are not being facetious or belittling the occupation; they are just curious. It is true large numbers of successful operators did start in this manner, usually not from choice but

from necessity; they had to work, jobs weren't available. They saw a sign saying "dishwasher wanted" and took it. These men and women had the initiative, drive and desire to get ahead and did so by dint of years of hard physical and mental effort. These same men and women are now the loudest in recommending and supporting further formal education for food service management. They recognize what they did and how they did it was necessary under their times and economic conditions but times and economic conditions have changed and so have the needs of the industry.

To function effectively in the food service industry today the fledgling manager must bring to the job a depth of knowledge adequate to help him meet the dual obligations of serving the public and maintaining an efficient operation. There is neither time nor opportunity for this knowledge to be gained as it was in the past, by "on-the-job" piecemeal situations over a number of years.

The required background knowledge covers a rather diverse field and includes — the sciences related to human nutrition; chemistry of foods; physical reactions of foods with environmental conditions and bacteriological activity of foods; the behavioral sciences which provide the understanding of why people behave as they do, most essential in an industry where maintenance of satisfactory interrelationships between people is a major function of management; the technological and engineering aspects of food handling with emphasis on equipment and its uses; the fundamental principles of organization and management of men and materials; incorporating understanding of accounting and cost control.

This should answer the question "Why is a university education needed?"

Another question which arises is: Where is this particular education available? The logical spots seem to be in Agriculture Faculty, the one faculty of the university oriented to, and concentrating on, the various aspects of food from production of basic foodstuffs to the sophisticated techniques and research needs for maintaining a healthy industry.

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Dr. Emil Lods of Macdonald College receiving the honorary title of Commander of the Order of Agricultural Merit in 1955 for his contributions to the advancement of agriculture in the fields of education and research.



QUEBEC'S AGRICULTURAL MERIT CONTEST

By Walker Riley

"In certain countries, they reward the generals who have won great battles and served their sovereign well. To earn their rewards, they must wade through the blood of their fellow men, pillage the countryside, burn the cities, and throw thousands of families into mourning. It's by death that these men conquer. For your part, it is through life that victory comes to you, the farmers. Instead of killing to gain fame, you give life; instead of being the cause of tears, you console; instead of destroying your country, you enrich it; instead of devastating the fields, you beautify them; and instead of burning the cities, you build them; instead of driving out the residents, you feed them; instead of throwing families into mourning, you bring them dignity and comfort."

These words, spoken in the year 1890 by the Honorable Honoré Mercier, then Prime Minister of the province of Quebec, marked the founding of Canada's oldest annual ceremony paying tribute to excellence in the field of agriculture.

Perhaps the story of these awards can be told no better than to quote directly from the historical sketch published in 1915, on the occasion of the Silver Anniversary of the contest.

The Order of Agricultural Merit was established in the province of Quebec by virtue of a bill passed by the Legislature at the session of 1889, and it was the following year, 1890, that for the first time in this country, the agricultural community received special recognition.

This nobility of agriculture already existed in France. The Honorable Honoré Mercier, former prime minister of the Province of Quebec, had the opportunity during a trip to the motherland of our ancestors, to confirm the stimulus that this "legion of honour of the ploughman" had given

to agriculture.

On his return to Quebec, he informed his colleagues of what he had observed in France, and revealed to them his intention to institute the Agricultural Order of Merit in the province.

To the Honourable Colonel Rhodes, who at that time was given the task of preparing and submitting to the House a bill which would be written into the French statutes.

This bill was presented in the Legislative Assembly by the honourable Mr. Rhodes, Minister of Agriculture and Colonization. "This measure," said the bill's promoter, "gives special recognition to the large and important class of farmers, and I have no doubt that they will welcome it with the greatest enthusiasm."

After brief explanations, he added, "We will be happy to receive all your suggestions to make this law as perfect as it is possible to do."

Two weeks later, the bill was adopted "sans autre objection," as

one can read in the Golden Book of Agricultural Merit, except for this comment by the Hon. M. Taillon, then leader of the Opposition. "We are going to say 'sur division' seeing that we do not have all the information we should have." It is evident from the above that everyone was agreed on the principle of the law. The Hon. M. Taillon's remarks indicate very well that both sides wished such a bill, and one which was as faultless as possible.

The law, sanctioned March 21, 1899, is titled "Act creating the provincial agricultural competitions, and provincial awards of agricultural merit".

Since this historical sketch was published in 1915, fifty-one more years of tradition have added to the high regard in which these awards are held. Impressive indeed is the annual ceremony at which, before the Prime Minister and dignitaries of the province, and 400 invited guests, the winners of the several classes receive their honours.

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Compiled by T. Pickup of the Information and Research Service,
Quebec Department of Agriculture and Colonization.

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PHOTOGRAPHS BY
OMER BEAUDOIN

ULYSSE BERNIER - QUEBEC'S FARMER OF THE YEAR

*(From the report of the Judges of the 1966
Agricultural Merit Contest)*

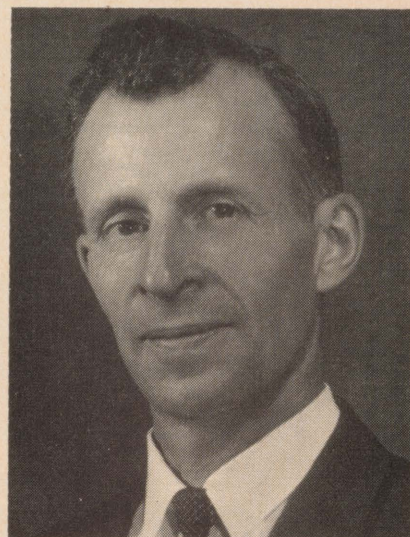
The winner of the gold medal and title of Commander in the professional farmers' class of this year's Quebec Agricultural Merit Competition is Mr. Ulysse Bernier of Frelighsburg, Missisquoi.

The new Commander of the Order of Agricultural Merit is a first-rate cattle breeder, a good farmer and market-gardener, and a devoted citizen.

It has taken Mr. Bernier only 20 years, starting almost from scratch, to reach the top ranks of Quebec's agricultural aristocracy. Now, at the age of fifty and encouraged by his success, he doubtless feels that the gold medal marks a happy stage on the way to the goal he has set for himself in the years to come. The secret of the spectacular success he has already achieved lies in his love for the soil, backed by a taste for reading and consultation, a talent for observation, and a zest for work.

Mr. Bernier is a graduate of the school of adversity. Following the loss of his father when he was nine years old, he had to leave the farm at Ange-Gardien in Rouville County since his family lacked the resources to maintain it. Between the ages of 17 and 30 he managed three large farms in succession. Cherishing the hope of farming on his own account some day, he saved as much as possible from his wages and, in the fall of 1946, bought a neglected property of 175 acres near Frelighsburg for \$3,000. He added another farm to his estate in 1957 and is now the owner of an agricultural enterprise of 450 acres, of which 300 are under the plough.

The land on "Des Sapins" farm is of varied texture, including 60 acres of clay, 100 of loam, and 140 of light soil, thus lending itself to diversified production. Mr. Bernier has taken advantage of this: he grows 30 acres of mixed grains (oats, barley, and wheat). 20 acres of potatoes, 30 of sweet corn,



ULYSSE BERNIER

20 of fodder corn, 10 of fall rye, and several acres of tomatoes, cabbage and carrots. There are 125 acres of hay and 55 in pasture. There is also a sugar bush of 1,000 tappings.

Although the revenue from the commercial crops is important — to the extent of providing 40% of the farm's gross returns — it is exceeded by the sales of fluid milk and breeding stock from the herd of a hundred Ayrshire cattle. The best animals in this herd can be seen at local shows and at the Toronto Royal Exhibition.

All the crops in this farm are abundant, thanks to good drainage and generous application of manure and fertilizer. Mr. Bernier has brought over 100 arpents of new land under cultivation, buried many log-rock piles, and laid drainage tile. He spreads about 200 tons of ground limestone on his fields every year and, in 1966, supplemented the manuring of his land with 90 tons of commercial fertilizer.

Mr. Bernier has two sons, both of
(continued on page 16)

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

ACCIDENTS THAT NEED NOT HAPPEN

Many of the 494 people who have been killed since 1956 in accidents with farm tractors in the United Kingdom would not have died, states a recent circular from the Ministry of Agriculture, if all tractor drivers consistently followed a simple set of rules. Precautions recommended are as follows:

Maintain your tractor well, giving regular attention to brakes, steering and tyres.

Make quite sure you understand all the controls and remember their position. Remember that when turning you greatly increase safety by going slower. Don't allow passengers on your tractor, and don't carry goods or loose tools which may foul the controls.

Drive slowly over rough surfaces and when using the independent brakes. The lower your speed the less your

danger. Do not drive too near ditches or banks, particularly if the surface is loose or wet. If the surface is tricky then make the headlands a bit wider.

Do not drive your tractor on steep hillsides with a heavy load behind, unless the tractor or towed machine is fitted with good brakes. Remember that rubber tyres have poor grip on short dry grass, on wet or juicy herbage, and on loose or muddy surfaces.

Your tractor is less likely to rear when climbing a steep hillside if you attach extra front weights.

It is much less dangerous when driving on a hillside if the wheels are extended to their widest position.

If you must consolidate a silage heap with the tractor, make sure the sides of the heap are properly supported or else keep well away from the edges.

Overturning is, however, not the only risk, states the circular, saying that each year there are a number of fatal falls from tractors, and stressing that muddy boots can easily cause a fatal slip. An accident often results from dismounting from, or attempting to mount moving tractor.

Starting a tractor while it is in gear can also prove fatal. The tractor leaps forward and runs the driver down or crushes him against the wall of the tractor shed.

A particularly tragic aspect of the accident statistics is that many youngsters are involved. Young boys are naturally keen to drive tractors on the farm but they are best kept away until they are big enough to have full control of the machine, have been given careful training, and know about the dangers they may meet.



Christiane Giguère beside the tractor on her father's farm at Ste. Famille on the Island of Orleans.

NOTICE TO CONTESTANTS IN THE FARM BEAUTIFICATION COMPETITION

(which is being held in connection with Expo 67)



A wealth of flowers gives an attractive appearance to the home of Mr. Georges Saint-Yves at Sainte-Anne-du-Sault.

Circumstances beyond our control have prevented us from carrying out the preliminary inspection of contestants' farms which had been planned for this year.

As a result, the awards will be made on the basis of the FINAL JUDGING that will be carried out between the 1st of July and the 15th of August 1967.

This change in procedure will not make any difference to the aims of the competition, but there will be some alterations in the system of scoring, about which you will be notified as soon as they have been decided on.

In view of the many prizes and other awards that are at stake, it is scarcely necessary for us to urge competitors to persevere in their efforts to beautify their property. In addition to the cash prizes totalling over \$100,000 many medals and certificates will be awarded.

The following list of the principal improvements that might be made by competitors to their property this year is intended to serve as a guide:

1. Painting and whitewashing buildings;
2. Straightening, repairing, and painting or whitewashing of fences;
3. Improvement of the entrance to the farm road;
4. Cleaning up the farmyard by removing stones, stacking wood, putting away farm implements, getting rid of weeds, etc.;
5. Planting trees if required;
6. Making lawns where necessary;
7. Making flower-boxes and anything else that might help to improve the appearance of the property.

Success will depend largely on the interest taken in the work done especially for the competition.

For compelling reasons, the distribution of trees which was to have been made in the spring of 1966 has had to be cancelled in part in certain counties; but all those who had already ordered trees will receive them — if they have not yet been delivered — in the spring of 1967.

It is a pleasure to announce that the culminating ceremony of the competition will take place toward the end of September 1967 in the Agricultural Pavilion on the grounds of Expo 67. All winners will have the advantage of visiting the International Exhibition and receiving their awards there.

If you wish for further information, your nearest agricultural information office will be glad to do everything possible to help you.

*Gerard Hudon, Agronome,
Director of the
Farm Beautification Competition.*

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

STERILIZING PUPAE TO LIMIT MOSQUITOES

An entomologist at the London School of Hygiene and Tropical Medicine, has developed an experimental technique for sterilizing mosquitoes at the pupal stage of development, which looks promising as a method of pest control (*Nature*, Vol. 210, p. 1372). The mosquito *G. B. White* has been working on, *Aedes aegypti*, is of especial concern to the World Health Organization because of the problem of insecticide resistant strains spreading malaria and fever in shanty towns.

White is working on the so-called sterile male method in which huge numbers of a pest species are bred artificially; the males are sterilized by chemicals or radiation and then released in infested areas. Since most females only mate a limited number of times in any season, the large numbers of infertile matings with sterilized males will reduce the birth rate.

White has shown that the sterilization of mosquitoes at the pupal stage has advantages over sterilization at either the adult or larval stages. Pupae can be sterilized simply by adding chemical sterilant to the water in which they have been bred — a much simpler procedure than sterilizing adults. Also, if sterilized pupae are dumped in the mosquitoes' natural breeding grounds, when

the sterile males emerge they will have a chance of mating equal to that of naturally-bred males. Because mating occurs almost as soon as the females leave the pupae, sterile males released at the adult stage tend to arrive too late.

The difficulty with treatment at the larval stage is that the dose required to sterilize a mosquito larva is not very different from the lethal dose. At this early stage the gonads are still relatively undifferentiated, whereas at the pupal stage their differentiation has proceeded to a point where they are more vulnerable to radiation than the rest of the body.

WATERY PORK

When the housewife and bacon processor buy pork they both look for a meat that is firm in texture and medium pink in colour. Occasionally however they are confronted with a pale, watery carcass produced by rapid denaturation of muscle protein following death. This is due to the exceptionally high rate of production of lactic acid while the carcass is still warm.

At present, the situation is met with only occasionally in British pigs and presents nothing like the problem that it does in Denmark, where the Danish Landrace breed is particularly susceptible to it. It is also much more com-

mon in pigs that have been individually reared than in those that have been reared in company with their fellows. Since the proportion of such pigs on the market is likely to increase, the problem of watery meat is likely to get worse unless something is done about it.

The only factor which is thought might account for the acceleration of denaturation is the increased excitability of some pigs in the holding pen just before slaughter. To find out whether excitability is the cause of watery pork, a series of experiments was conducted at the Low Temperature Research Station, Cambridge, in cooperation with the Danish Meat Research Institute. In these tests, the effects of electrical stimulation on freshly excised muscle was determined.

It was found that stimulation for 30 seconds produced an immediate increase in acidity and also a marked long-term acceleration of the cycle which produces lactic acid.

The Cambridge scientists suggest that, by the simple expedient of injecting pigs with a tranquillizer shortly before slaughter, it should be possible to prevent the occurrence of watery pork. While this might have adverse effects on other qualities of the meat, the Cambridge workers believe it should prove possible to find an acceptable tranquillizer.

\$900,000 ASSISTANCE FOR APPLE GROWERS

QUEBEC, September 14th, 1966 — The Quebec Cabinet has approved a special decree authorizing payment of compensation totalling approximately \$900,000 to apple growers in the Eastern Townships whose crops have been partly or entirely spoiled by the hailstorms that swept through the region on the 15th and 17th of June and the 28th of July. Announcement of this assistance was made by the Hon. Clément Vincent, Minister of Agriculture and Colonization.

The counties most seriously affected by the storms are Rouville, Shefford, Huntingdon, Bagot, Saint-Hyacinthe, and Missisquoi.

Compensation will be based on the number of bushels of damaged apples that the grower delivers to a centre specified by the Department. The lo-

cation of the centres will be decided in the near future. The amount of compensation will be about \$1 a bushel on up to 200 bushels per acre. Mr. Vincent pointed out that this method of compensation would have the advantage of keeping off the market a considerable quantity of inferior apples. A disproportionate quantity of such apples reaching the market might lower the price received by the grower for apples of better quality.

Growers whose apple crop has been damaged to the extent of 50% or more will be credited with a loss of 100% and will receive compensation on the maximum amount of 200 bushels per acre. If the damage is less than 50%, the amount of compensation will be based on the proportion of the crop that has been damaged.

Hail-damaged apples delivered to the above-mentioned centres will be sent by the Coopérative Fédérée to processing plants in Quebec, Ontario, and the United States at a charge to the grower of 5% of their value.

On submitting the proper vouchers issued by the Coopérative Fédérée and approved by the Government's inspector, the grower will receive a payment of 60¢ a bushel directly from the Department of Agriculture and Colonization. In addition, the Coopérative Fédérée will pay him the amount it receives from the sale of his apples to the processors, less 5%. If the average price received by the grower from these two sources comes to less than \$1 a bushel, the Department of Agriculture and Colonization will make up the difference.

This page supplied in the interests of the Family Farm by the Quebec Department of Agriculture and Colonization.

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FERTILIZERS FOR POTATOES



A field of Irish Cobbler potatoes belonging to Daniel Blouin at St. Jean, Island of Orleans.

Results of trials to discover the effects of fertilizers on potato crops and on the soil in which they were grown in l'Islet County have recently been published by the Department of Agriculture and Colonization.

The trials were carried out over a period of eight years at Saint-Roches-Aulnaies by Mr. Auguste Scott and Mr. Emile Chamberland with the help of a grant from the Quebec Agricultural Research Council. Three different levels of nitrogen, phosphorus, and potassium were tested on potatoes

grown in rotation with oats and bird's-foot trefoil hay.

It was found that additional amounts of phosphorus and potassium supplied in the form of fertilizer to potato fields which were already sufficiently rich in these two elements were not completely utilized by the plants. Soil analyses revealed that 27% of the phosphorus and 40% of the potassium accumulated in the soil and was available to the other crops in the rotation.

Fertilizer applications resulting in such surpluses are not advisable for po-

tato crops because it has been found that excess of phosphorus tends to reduce the yield, and excess of potassium, while not affecting the yield, lowers the quality of the tubers.

Every programme for the application of fertilizer should begin with an analysis to determine the soil's content of the principal plant nutrients and thus to indicate the fertilizer formula best suited to that soil. Full utilization of fertilizer also depends to a considerable extent on the amount of available moisture in the soil.

AGRICULTURAL MERIT COMPETITION —

(concluded from page 10)

Any farmer may take part in the Agricultural Merit Competitions providing that, during not less than the past five consecutive years, he has operated a farm of at least sixty acres, as owner, usufructuary, tenant-farmer or lessee.

Prospective competitors must register

for the competition before the 15th of June, on a form prepared by the Department of Agriculture of the Province of Quebec. Each such registration must be accompanied by a declaration by the county agronomer to the effect that the candidate fulfils the required conditions and that his agricultural operations are of a sufficiently high standard, in all respects, to give the farm a progressive character.

For the purposes of the Agricultural

Merit Competitions, the Province is divided into five regions, entries being restricted to one of these per year, so that the whole Province is covered every five years.

Competitors are divided into two groups. The first group consists of competitors for the title of Commander of the Order of Agricultural Merit. The second group consists of candidates for the titles of Officer and Knight and the Diploma of Merit.

MODEL LAW FOR PESTICIDE CONTROL

Three years ago the director-general of the Food and Agriculture Organization established a working party to investigate broadly how member governments could tackle the problem of controlling pesticides. Many a ton of organochlorine compounds has settled on the world's crops since then, but now the working party is near to completion of its major task. A model law, embodying an official registration and approval scheme, has been drafted and will shortly be submitted to the governments for consideration.

Copies of the draft have been sent only to a limited number of institutions and experts in the field of pesticide analysis and control, who have been invited to offer suggestions for additions or improvements. In any case, the final product inevitably will be only the skeleton of a national control scheme. Almost all possible modes of control are covered in the draft model law, the idea clearly being that the individual governments can delete those which it regards as unnecessary or superfluous.

Regulations for the licensing of manufacturers, and for the registration of every substance coming under the law, are set out. Registration on a yearly basis, with all products bearing an easily identifiable number, is suggested. A further section provides for the establishment of a pesticide control organization to supervise registration and operate any regulations made — the director to be a pesticide specialist, appointed by the minister responsible for agriculture.

The important matter of labelling, packaging and advertising is also covered. The emphasis is on safe and effective packaging, fully descriptive and clear labelling and the prevention of misleading advertising claims for any product. A special section empowers the responsible minister to make strict regulations with regard to highly dangerous substances or operations. He may prohibit the sale of such substances entirely, restrict their use, or regulate the manner of spraying. The tolerances of pesticide residues in or on crops are left to be determined by regulations made under its aegis, unless such tolerances are already established under any other provision of law.

This model law is intended "to provide a reference for those governments which are in the process of establishing registration and approval schemes or wish to alter their existing laws". In fact it comes too late to aid the more responsible and watchful governments which have already set up control systems. But it should stimulate

action at last in the few countries which have not yet woken up to the potential dangers of pesticides or have been too lax to make the necessary attempt at control. And even where regulations are already comprehensive and strict, the FAO's draft may provide some useful ideas for improvement.

ROOT-GRAFTING KEEPS DOWN THE BEETLE

Grafting one plant on to another is the way that horticulturists perpetuate forms which cannot grow well on their own roots. Some Canadian research has shown that a form of grafting, done by the plants themselves, confers a further important benefit — an immunity to attack by bark beetle.

Bark beetles are responsible for killing more trees than any other single pest and consequently their ravages are the natural concern of foresters. The only redeeming feature of their attacks is that they are restricted to comparatively few species of tree.

Most of these insects breed in dead or dying trees, but if large populations develop, they will turn to live trees when their preferred food gets in short supply. It was generally thought by foresters that the stumps and branches left after thinning and felling operations could provide potential breeding grounds for the beetles.

J. Lynton Martin of the Forest Insect Laboratory of the Canadian Department of Forestry, Ottawa, to test this theory, made regular examinations of stumps of red pine in Ontario. He found that even a year after felling, 80 per cent of the stumps were still alive — and still immune to insect attack.

Martin found that the stumps were being kept alive by a natural "Root-grafting" process. In a forest, there is extensive intermingling of the roots of the trees and it was found that roots of one tree joined themselves to another — root-grafting.

The result, in the case of a felled tree, is that its roots still receive some of the photosynthesis products from a neighbouring tree and so keep the stump "ticking over".

Another mechanism which stopped infestation by beetles was the production of resin. The top three inches were heavily impregnated with the resin, so cementing the bark firmly to the wood and making the wood so hard that the beetles could not bite into it. Weevils also attacked the lower parts of the stumps to some extent — but to no avail — since the larvae drowned in the heavy resin.

Some of the root-grafts later broke down and the stumps were attacked by fungi, but this too made them unsuitable for, or unattractive to, insect attack.

APPLE SAUCE COMES IN FLAKES

An economically attractive method of producing apple sauce in the form of dry flakes that can be reconstituted within minutes has been worked out by M. E. Lazar and M. I. Morgan of the Western Regional Laboratory, US Agricultural Research Service (*Food Technology*, Vol. 20, P. 179). Pilot-plant trials, it is reported, have resolved most of the problems likely to be met with in commercial practice.

An ordinary apple sauce is first prepared, with or without sugar, and fed into the gap between steam-heated drums. These rollers rotate towards one another. The film that forms on the drums is chilled by dry air blown on to it at a point where it approaches the peeling knives. Flakes produced at the knives are transferred by take-off rolls to a collecting zone maintained at a relative humidity of about 10 per cent. Moisture and other vapours are removed through suction hoods.

The chilled air breeze and the dry air collecting are essential modifications to the basic drum-drying technique — often used for fibrous foods, but seldom for fruit; they prevent the film piling up on the knives, and the flakes from picking up moisture. The size of the flakes can be varied by adjusting the speed of the take-off rolls; their density by adjusting the distance between the drums.

Unsweetened apple-sauce flakes can be reconstituted within about a minute by adding seven parts by weight of cold water. Sweetened flakes require 2.5 minutes and four parts by weight of water. Caking during storage is prevented if the flakes are sealed in containers and stored below about 30°C.

QUEBEC'S FARMER —

(continued from page 11)

whom have a diploma from the School of Agriculture at Ste. Martine: Raymond, who is 27, is the manager of Lake Side Farm at Philipsburg, and Normand who is 23, helps his father to operate the family farm. Mrs. Bernier is ably assisted in her busy housekeeping and gardening by a daughter. This fine family now includes four generations.

In spite of the many duties of a farmer who has completely transformed his enterprise within 20 years, Mr. Bernier still finds time to serve his fellow citizens. He is at present mayor of his parish, prefect of the County of Missisquoi, and director of the Canadian Ayrshire Society, as well as taking part in farmers' organizations and rural development. In brief, he is a progressive farmer, devoted citizen, and a model for other farmers to follow. The Gold Medal is a fitting recognition of his merits.



THE BETTER IMPULSE . . .

News and Views of the Women's Institute of Quebec

ACWW NEEDLEWORK COMPETITION

(Rules for the ACWW Essay Competition appeared in the Journal previously.)

CLASS A — A Traditional Sampler of Stitches:

- 1) Size to be not greater than 8" x 10";
- 2) Design — any pattern traditional or modern — showing a variety of stitches;
- 3) Material — any type the competitor desires, bearing in mind its relation to the thread used (i.e. cotton, silk or wool) and the design chosen;
- 4) Color — no restriction on the choice of color or colors;
- 5) Entries must be sent for judging unmounted but with 'finished' edges.

CLASS B — A piece of Free Needlework using local materials if desired:

- 1) The piece should be for a stated use, suitability to be considered;
- 2) If it is to be mounted (i.e. stool, picture, chair cover) it must be sent for judging *unmounted*;
- 3) Size to be not more than 24" in any direction;
- 4) Any design, colors, techniques or materials may be used;
- 5) Marks will be given for the finish of the back of the work.

These are to be judged first in the Society and only the 3 winning entries sent to London.

Closing date in London, March 31, 1968.

Prizes: In each class £10; £6; £4. For more information contact QWI Office.

FROM THE OFFICE

Tweedsmuir contests: As these must be judged provincially first, entries must reach the QWI Office by Feb. 1, 1967.

Wanted, French girl pen pal: From 775 Douglas St., Kamloops, B.C. Jean Frolek, 17, Grade X11, interests music and sports, would like to correspond with a French girl. Her mother, Mrs. J. Frolek would like a correspondent from a WI branch, not necessarily French, preferably near Montreal.

Copies of the Mary Stewart Collect suitable for framing may be obtained for 25¢.

Pamphlets: Please note ruling at Convention — branches are responsible for lost pamphlets.

WI OF ACACIAVILLE



Women's Institute of Acaciaville, N.S., first in Canada composed of Negro women

The Women's Institute of Acaciaville, N.S. has the distinction of being the only one in Canada composed of Negro women. When the Acaciaville Community Betterment Association was organized in June 1962, under the leadership of the Rev. W. Clayton, the women decided it was time they, too, were broadening their views and reaching out in the interest of community life. Mr. Clayton invited Miss Yvonne Chiasson, The Home Economics representative for that region, to meet the ladies of the community to discuss their needs. As a result it was decided that the Women's Institute could supply a medium through which the women of the community could obtain the help they were seeking with their problems. Mrs. Florence M. Hilchey, Supervisor of Home Economics and the Women's Institutes of Nova Scotia, visited the group. At the close of their talk the Acaciaville Women's Institute was organized.

This was in 1964. Since that time, talks, demonstrations, classes in rug-hooking and sewing have been well attended, and a variety concert was put on, the women using their own talent. The response was so great that the WI was asked to repeat it for their

church. "It was during the preparation for the concert," writes the President, Mrs. Eva Cromwell, "that we really began to see the effects of the organization taking hold, because we were getting to know one other really well. Working together, as we never had before, especially since the Women's Institute is non-denominational, we were thrilled with the results."

Through their W.I., a number of books were received for a community library, and Negro women from three nearby areas were brought closer together as they sought advice to their problems and helped to develop the role of leadership among the members. For the future they are planning for a proper sewage system for the area; and night classes for adult education. In this way they hope to encourage more members to join their branch.

In her report at the recent Provincial Convention of the Women's Institutes of Nova Scotia, Mrs. Cromwell told of the activities of her W.I. and concluded by saying, "We are hoping that we can make our organization stronger and therefore help to make a community of which we may be proud."

With that spirit they will surely succeed.

UNESCO

by Edyth R. Westover
Convenor of Citizenship
Quebec Women's Institutes

The Exchange of Ideas and the Advancement of Knowledge.

Ideas are in many ways like plants. Great discoveries and advances of human knowledge are rarely made by accident; progress is sometimes a long and often a painful one. The majority of such ideas, like the majority of plants, flourish in the presence of others. They rarely come to fruition in isolation. At best their growth process and summation are delayed by isolation. As in so many other fields of human activity, progress is made quicker and easier by cooperative work. There is much truth in the saying that "two heads are better than one".

Intellectual Cooperation

One of Unesco's constitutional duties is to "maintain, increase and diffuse knowledge by encouraging cooperation among the nations in all branches of intellectual activity".

Thus to further such intellectual collaboration, Unesco has sometimes convened specialists from all over the world for meetings.

Such meetings, however, require substantial funds and extensive preparation and, since its very first years, Unesco has found that in general the most effective, economical and stable method of encouraging international exchanges and of developing world-wide cooperation among specialists was to support the efforts being made by international non-governmental organizations of specialists in education, science and culture, and to secure the active cooperation of these organizations in the pursuit of Unesco's aims. Thus Unesco has directed its efforts towards helping international non-governmental organizations to carry out their programmes when the General Conference has decided that their activities contribute substantially to international cooperation in the spheres of education, science and culture.

One of the most effective ways of providing international collaboration among experts is to enable them to spend a period of time working or pursuing further studies in countries other than their own. The promotion of travel abroad for educational, scientific and cultural purposes is an essential element of Unesco's work to promote a more effective sharing of knowledge and skills.

Some six hundred fellowships in educational, scientific and cultural fields have been granted by Unesco, providing also opportunities for people in all walks of life to meet people of other lands. Travel grants are being made to

workers and youth leaders, and will also be made to women leaders engaged in adult education. Educational travel for young people is stimulated by liaison and advisory services to organizations and individuals and by publication of handbooks on fellowships, scholarships, work camps, study tours and other opportunities — almost 100,000 of them for study and travel abroad.

Hence one of the primary functions of Unesco is to collect, select, prepare, publish and disseminate information and documentation about subjects related to its programme.

Unesco is concerned with the establishment and development of museums and libraries and with the preservation of monuments, works of art, historical sites, cultural collections and landscapes.

Free Flow of Information

In addition to these services, Unesco has achieved much in removing obstacles which stood in the way of international exchange of information and ideas. This has been achieved mainly through international agreements and arrangements which have been promoted by Unesco. One of the most important of these is the agreement on the "Importance of Educational, Scientific and Cultural Materials". By this more than thirty countries have agreed to grant exemption from customs restrictions and duties for the importation of books, newspapers, works of art, and certain kinds of scientific equipment. This not only helps those engaged in research, it can be of great value to the cause of international understanding, since it increases the possibilities of sharing the life and culture of other countries in remote parts of the world.

The purpose and programme of Unesco — and of the United Nations family of organizations in general — are examples of international cooperation for mutual benefits among the world's people.

These are some of the ways in which Unesco seeks to increase the volume of human knowledge and skills through promoting research, to make the benefits of research available in practical form to as many people as possible, and to keep the people of the world informed about the changes and developments which are taking place in the world. Throughout the emphasis is on cooperation between nations, on a practical realization of the belief that only through cooperation can progress be made.

But the success of this work depends on more than just a few people. If knowledge is to be made use of, the people who are to use it must be educated themselves.

Perhaps the most important aspect of

the work of Unesco is its concern to extend and improve educational provision in every part of the world.

Film review —

NO REASON TO STAY

Society will call him drop-out, a failure, but is the failure in the boy?

If he drops out of school who cares? He won't make headlines; no one will raise the matter in Parliament; and the school administration will continue its impersonal routines.

Developed from a script written originally by a boy of the same age as the one in the film, *No Reason to Stay* takes a deliberately biased look at the history of one drop-out and what he dropped out from. Christopher sees his problem as an indictment of the educational system that one teacher author, Paul Goodman, called *Compulsory Mis-Education* in his famous book.

In the film Christopher Wood is a student of the brighter sort who rebels against the dull round of drill, memorization and routine, the lack of anything "meaningful to any kind of future I can imagine for myself". He can find "no reason to stay".

The film alternates its study of Christopher's experience in school with his life outside. It also represents his daydreams, which often serve as outlets for his frustration. In one dream episode Christopher appears as judge and his teachers as defendants. His verdict: "You do not interest, you bore. You are guilty, in fact, of boring to death thousands of innocent students".

Whether school teachers are as guilty as Christopher believes, will likely be debated, but the boy's opinions represent the sort of rebellion felt, if not expressed, by many students today.

Christopher has no answer for the charges he makes, but behind his despair is the hope that, somehow, something will be done to make school a greater challenge for people like him.

This film may be borrowed from the Extension Film Library, Macdonald College, for the nominal service charge of \$1.00, plus transportation costs. It is 16mm. sound, black and white, and runs for 28 minutes. Production is by the National Film Board.

Iris Robbins

CORRECTION:

In reporting the gift of a wheel chair and money to children's ward by the Ste. Anne's WI there was an error in the name of the hospital. It was the Lakeshore General Hospital, not the Lachine Hospital.

The Month With The W. I.

ARGENTEUIL: Branches reported hearing interesting and informative reports from delegates who attended Provincial Convention. **Arundel:** Mrs. Hall, County President, was guest speaker, and spoke of WI work; displayed exhibits shown at Lachute Spring Fair, where 18 prizes were won; held bazaar, with members contributing handicraft articles; Mrs. Bulley was guest of honour, celebrating her birthday, and was presented with a beautiful cake, and many good wishes. **Dalesville-Louisa:** named a Canadian Prime Minister and told something about him; paper read on Etiquette for Canada's National Flag; were introduced to the book "Women's Rights in Quebec" pertaining to Bill 16; held contest in the form of a quiz on Expo '67. **Frontier:** each member told of something interesting seen at the Lachute Spring Fair; will give prizes for gardens grown by 4H Club; discussed Centennial project; held picnic. **Pioneer:** members guests and families held picnic at Rotary Park; sent shower of cards to sick member; gave prize to 4H Club for Achievement Day. **Upper Lachute East End:** as roll call named an odd or unusual word and its meaning; heard report of Handicraft Exhibit at Lachute Fair, and prizes given out; wedding present to member's daughter.

BONAVENTURE: Port Daniel members visited Senior Citizen's Home in Maria, taking gifts of jams, jellies, sweets and flowers; completed Christmas Stockings; sent cottons to Cancer Society.

CHATEAUGUAY - HUNTINGDON: Aubrey-Riverfield entertained Huntingdon members at annual summer picnic, at home of Mrs. Carnie; Mrs. H. Robertson, County President spoke about decisions made at Annual Convention for coming year. **Dundee:** Hostess Mrs. J. Platt demonstrated a vase of roses she had made from shells in Florida, as well as other shell work; purchased Expo tickets. **Huntingdon:** program on the Flag, included Salute, meaning of flag, and an article about the symbol of the Maple Leaf; quiz on authors; outdoor pot luck dinner held at summer home of Mrs. LeBoeuf; awarded the branch's Laura Rose Stephen Scholarship to Miss Jessie Fraser, daughter of Dundee WI member; made Student Loan.

GASPE: Douglastown's Roll Call — bring-and-make a dish towel; good report from delegate who attended Convention at Macdonald; catered a church supper; welcomed a new member; held contest on naming a country you would like to visit and why; baby shower gift presented to member. **Gaspe:** gave favourite square recipe as roll call; held annual county picnic at Fort Haldimand Camp. **Haldimand:** guest Dr. Guy Fortier spoke on Medicare; work calendar for the month — a child's toy; sent Christmas stockings; held successful Bingo evening, and sold articles to raise funds.

MEGANTIC: Inverness heard report on suggested Centennial project; sold mitts, tablecloth and holders; planned to attend a Fair as a group; roll call was What I would like to see at the Fair. **Kinnear's Mills** welcomed 2 new members; sold Expo tickets; heard report of convention; roll call on "Take Time to Think — it is the Source of Power".

MISSISQUOI: Stanbridge East held picnic instead of a meeting, with members of the Home Demonstration Club of Richford, Vt. as guests; answered roll call by relating an old-time anecdote; members and guests enjoyed a tour through the Old Mill Museum in Stanbridge East.

PAPINEAU: Lochaber's program was to bring an antique and tell its history; some of the articles on display were an 1826 Gaelic Bible, 1890 Municipal Code Book, 1892 readers, a quilt about 100 years old, china, hand-painted vases, jewellery and other well-kept and interesting articles; as roll call, named birthstone and flower; filled Christmas Stockings.

RICHMOND: Dennison's Mills held cookie contest with prize going to Mrs. C. Carson; are carrying on a Window Box Contest. **Gore** have set up a picnic table on Highway 32 as their Centennial project; Mrs. Johnson told of her visit to the birthplace of Sir Wilfred Laurier at St. Lin; prize for quilted cushion for inter-branch competition won by Mrs. S. Doyle; donated to the Historical Society in memory of the late Miss Alice Dresser; donated to prizes at the Plowing Match. **Melbourne Ridge** planned their lunch booth at the Richmond Fair; held contest, conducted by publicity convener, on jum-

bled names of places in the Eastern Townships, with prizes won by Mrs. A. Smith and Mrs. D. Fowler; planned for August School Fair. **Richmond Hill** discussed topics for their radio broadcast; planned chicken pie supper; contest, conducted by Mrs. L. Goodhue on citizenship; sold pillowcases; **Richmond Hill Young Women** held contest on leaves, won by Mrs. R. Lancaster. **Spooner Pond** held picnic for members and families; prize for quilted cushion won by Mrs. A. Coddington; Mrs. F. Noble, a member now living in Toronto, was at this meeting, and received congratulations on winning 3rd prize for her painting in Tweedsmuir Competition.

ROUVILLE: Abbotsford had a demonstration of Avon Products; planned for an Expo '67 meeting, with Mme Martin, who lives in Abbotsford and is involved in Publicity for Expo, as speaker for the evening; other WI branches will be invited, and a special effort will be made to get publicity for this event in Montreal papers.

ROUYN-NORANDA: Farmborough had a quilt-making demonstration given by one of their members; some members are working on a quilt during the summer months. **Noranda** held a "Trading Post" of used clothing; presented 20 Library Cards to school students; attended a metal-crafts display; at one meeting exchanged plants and slips and held quiz on flowers. **Rouyn** held display of needlepoint, metalcraft, copper tooling and weaving; clothing donated to needy family; some members are taking a summer course in weaving and in "mossettes"

SHEFFORD: Granby Hill held family picnic for members and friends; as roll call named a Prime Minister of Canada, and gave a suggestion for a Centennial Project; two members told of their attending a session of Parliament while visiting in Ottawa; contest on Canada conducted; sold Expo tickets; article on requirements for an immigrant to become a Canadian citizen was read; also article on use of olives for heart disease; read and discussed Education Outline for 1966-67. **Granby West** held contest on Citizenship, and as roll call told Why I like being a Canadian; one member made bandages for Cancer Society; col-

lected Pennies for Friendship. **Waterloo-Warden** held contest on United Nations; received a prize for entry in Tweedsmuir Contest; presented play at Provincial Convention.

SHERBROOKE: Ascot's current project is attempt to get roads named, and more road signs placed; sold Expo tickets; discussed changing name of the Beatrice Cameron Memorial Bursary to Ascot WI Bursary, and raising amount to \$50. **Belvedere:** Mrs. H. Wallace, Provincial and County Convener of Home Economics, spoke on the Leadership Course she attended, and on aspects of Home Economics; donated School Fair prizes. **Brompton Road** had Mr. McLintock, principal of Mitchell School as guest speaker; as a memorial to the late Miss Verna Hatch, \$50 was donated to purchase French-English dictionaries, to be placed in

Grades 6 and 7; held card party to raise money for school fair prizes; donated school prizes for Arithmetic; had one entry in Salada Competition. **Lennoxville** donated school fair prizes; gave souvenir gifts and helped entertain exchange students from Newfoundland; held picnic; made handicraft articles for fair booth sale; one exhibit in Salada competition, which won first prize for Mohair cardigan; members made and wore corsages of wild flowers, and named the varieties used. **Milby** held a contest; held quiz on the flower emblems of Canada, with prizes won by Mrs. B. Turner and Mrs. R. Sutor.

Dear ACWW Members and Friends:

Are you familiar with the quotation from Edwin Markham?

"Why build these cities glorious?

If man unbuilds goes?

In vain we build the world, unless

The Builder also grows."

The international organization ACWW is our "city". It grows more "glorious" with each passing year. Societies and individuals in lands around the world are joining ranks or inquiring how they can become members. ACWW efforts and projects increase in magnitude and value. Encouraged and aided by ACWW, women are travelling afar to learn of, and from other women and other societies. The United Nations and Governments respect the opinions and wishes of ACWW. The organization holds international conferences with discussions on important topics in world development and for world peace. Links of understanding and friendship on all levels are made and strengthened. Our "city" is well builded. Bernard Baruch says, "The highest and best form of efficiency is the spontaneous co-operation of a free people." The ACWW "city" demonstrates this efficiency.

BUT the first quotation also says all is in vain "unless the builder also grows". The foundation of ACWW was built by women of vision, and women of vision are still building, but as in the construction of a city ordinary workmen are just as necessary as skilled engineers and master carpenters. If the day to day work of the unskilled laborer is faulty and done with no pride the whole structure suffers.

The individual member in the small unit is the unskilled laborer in the task of building of the ACWW "city" ever bigger and stronger. To build firmly for the future ALL must understand their work and do their part.

To realize the full potential of ACWW it is vital that the members in the small communities understand

ACWW — its ideals, its objects, and its program. This is the challenge to those who have the opportunity to learn more about their international organization. Local and national efforts are in no way minimized but the women of all our societies are capable of, and eager to embrace a much larger scope — of "growing" with the ACWW "city". The time is right for such growth with the Dublin Conference just behind us and next conference near us in the United States.

Let us all in the year ahead make a special effort to know what we are building; to know why we are building it; to do our best to be a workman worthy of his hire.

With all good wishes for success in your work and kind personal regards to those I have had the privilege of meeting.

Yours sincerely,

(Signed) Elizabeth Rand

Mrs. Keith Rand

Area Vice President

ACWW

PLEASE NOTE

A Pale Blue (aqua) Mohair Sweater, white pearl buttons, no collar, entered in Salada Contest and belonging to Mrs. F. H. Coughlin, Noranda, was mislaid after the exhibit at Convention in June, and has not yet been received by its owner.

If anyone has any information or knowledge of this sweater — if it was taken by mistake or taken to return to owner — please get in touch with Q.W.I. Office at once.

ENGINEERING STAFF GROWS

Ray G. Cassidy has joined the staff of the Agricultural Engineering Department as an electronics technologist. Mr. Cassidy, a graduate of the Eastern Ontario Institute of Technology, will be working on instrumentation problems for teaching and research in several Departments at the College.

FOOD INDUSTRY —

(concluded from page 9)

This is where you find the future managers of the food service industry studying. Over the years through broadening of the agriculture curriculum, by the offering of options and elective subjects the student has been able to broaden his study areas. Today the Food Management student finds he or she is taking lectures in subject areas once considered the private preserve of Home Economics, Engineering or Business Administration, as well as normal Agriculture subjects.

Next time you visualize the Food Industry, do include the Food Service Industry, recognizing it as a part, but a vital part, of the total Food Industry.



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DOWN ON THE FARM

by Norma E. Holmes

(concluded from Sept. issue)

Dear Min :

You have heard all about Lucerne which is just as beautiful as they say. Some of us went up Mt. Pilatus in a cable car, one took the lake tour, but I just wandered around, soaking in atmosphere and getting soaked in the pocketbook.

I began to see red geraniums in my sleep. In Belgium, in Germany, and especially in Switzerland, they flourish. Typical Swiss houses are wide at the bottom (sometimes 8 or 10 windows across) and 3, 4, or even 5 stories high, and each and every window has its window box of red geraniums. Once in awhile (not often) some non-conformist ventures to plant pink ones, or petunias, or maybe even begonias, but as you might suppose, they don't thrive. By the time we crossed into Italy and, except in the border mountains, the shutters, window boxes and red geraniums came to an abrupt end, I had decided that it must be illegal to NOT grow red geraniums. I even saw them on barns — of course the usual friendly farm building is all one, the house one end and the barn the other and

(complete with red geraniums) occupies often it too has window boxes. Carroll said if they get especially fond of one particular cow, they bring it into the family end. You can take that or leave it.

I do think their cows must have more love of beauty. Of course, they are also fond of music, as each has its cowbell. If it is so they won't get lost, I can vouch that a herd marching down a village street with all bells going, it works, because we all left our coffee — at 22c per cup — in a cafe and ran out to see where the fire was.

Beautiful through the Alps. If it weren't for the houses and all the little villages clinging to the sides of the mountains, you would think you were in our own Rockies. Stopped for a coffee break at Lake Vallen, misty and beautiful, then on to St. Moritz for overnight. In the evening we visited a cafe (tavern?) where some of us climbed into a huge sawed-off barrel to sit. Sounds as though I were getting quite depraved, but believe it or not, I had coffee — beer would have been cheaper and more respectable I imagine.

— Eloise

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DR. HAROLD KLINCK PRESIDENT C.S.A.

Dr. Harold Klinck of the Agronomy Department returned recently from a month long tour of Western Canada where he attended the Agricultural Institute of Canada annual conference in Winnipeg and the Canadian Seed Growers' Association conference at Fort St. John, B.C.

In Winnipeg, Dr. Klinck was elected President of the Canadian Society of Agronomists, an affiliate of AIC. At Fort St. John, he accepted the position of Vice-President of the C.S.G.A.

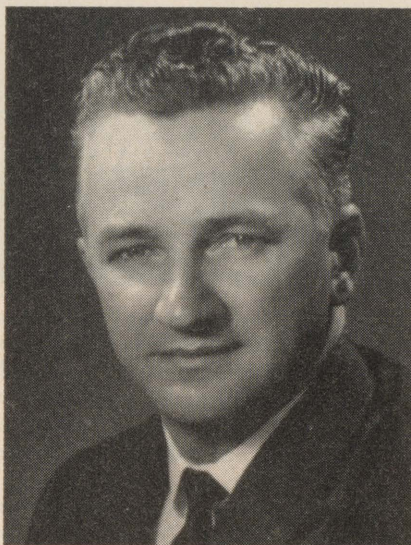
Among his many new tasks, will be the preparation for next year's annual conference of the C.S.G.A. to be held in Quebec City. Dr. Klinck notes with pleasure that the number of pedigreed seed growers in Quebec almost doubled to 300 in the past year.

PASTURE COMPETITION FOR EASTERN TOWNSHIPS

Two pasture competitions, organized by the Quebec Farmers' Association, were judged last month in Richmond and Compton County. Dr. John Bubar of the Agronomy Department, Walker Riley, Galen Driver, and Jim Brown of the Extension Service, and W. S. Richardson, Lennoxville Experimental Farm (retired), shared the judging responsibilities. Nineteen farms were visited in Richmond and 21 in Compton, Richmond winner was Donald Johnson, Kingsbury, and the Compton winner, Wells Coates, East Angus.

The judges were impressed with the many excellent stands of Ladino clover-Climax timothy, and with the number of promising new pastures recently bulldozed from rough land. Carrying capacity ran as high as 3 animal units per acre, and with production to 2700 lbs. per acre in the first 80 days of the pasture season.

LANDS AND FORESTS MINISTER HERE



The new Minister of Lands and Forests, Claude Gosselin, officially opened the demonstrational sugar house in the College's 700-acre, Morgan Arboretum, on September 22, during National Forest Products Week.

The occasion provided the Minister with an opportunity to review the work of the Department of Woodlot Management in research, teaching and extension.

4-H'ERS TOUR COLLEGE

Quebec played host to nine 4-H members in an inter-provincial exchange program last month. As part of their look at Quebec agriculture, these teenagers from all other provinces visited the College farm. Macdonald was also their base of operations for a two-day visit of Montreal island. Most of their two-week stay in Quebec, however, was on the farms and in the homes of their exchange partners who went to the other nine provinces.

SKEPASTS TO NORTHERN POST

Alex Skepasts, who obtained his B. Sc. (Agr.) and in 1960 Master's degree in agronomy at Macdonald College, has been appointed Chief Instructor and Extension Specialist at the New Liskeard Demonstration Farm, Northern Ontario.

Alex will be responsible for developing an applied research program in soils and crops for North-Eastern Ontario.

Until his new appointment Mr. Skepasts was Instructor in Agronomy and Extension Specialist at Kemptville Agricultural School.

DONEFER IN URUGUAY

Dr. Eugene Donefer, Department of Animal Science, left on September 24th for Uruguay where he is one of four participants in a seminar of the inter-American Institute of Agricultural Science on forage evaluation techniques.

The Nutrition Laboratory at Macdonald College which has been concerned with this work since 1957 is currently conducting a survey, in co-operation with 40 herds enrolled in the Dairy Herd Analysis Service, toward the possibilities of establishing a forage-testing service this coming summer.

Prof. Donefer is also spending a week at the College of Agriculture, University of the British West Indies, discussing the possibility of co-operation experiments in forage utilization.

JACK JOHNSON TO N.S. SOIL AND CROPS

Jack Johnson, 1952 graduate of Macdonald College, is in the news again. Jack has resigned his post as Regional Supervisor of the C.B.C. Farm and Fisheries Department to take up the post of Director of the Soils and Crops Branch, Nova Scotia Department of Agriculture.

FOOD GAP WIDENS

Speaking to the Canadian Business community in Buenos Aires, Argentina, in August, Hon. J. J. Greene, Minister of Agriculture for Canada, expressed concern that the food-gap between "have" and "have-not" countries was continuing to widen. In part, he said, "We believe there is a tragic irony in the fact that while the developed countries have learned to produce food with greater efficiency and in greater abundance than ever before, per capita food supplies in the less-developed countries have declined. Unless new approaches can be found in the world's system of food distribution, this situation where the well-fed — and often over-fed — in developed countries worry about food surpluses while millions elsewhere are hungry, will be worsened by the rapid growth of population, especially in the developing countries. The immediate prospect for the countries to increase their own food production at a more rapid pace is not encouraging. During the last 25 years, per-acre yields rose more than 100 percent in North America, by more than one-third in Western Europe and by only eight percent in less-developed countries. Since 1946 agricultural productivity in Canada has been increasing about 2.6 percent per year — a rate of growth that compares favourably with that of the United States. Wheat yields per acre have increased by about 50 percent between 1946 and 1965. Any permanent solution to the world-food problem can only be brought about by the efforts of the developing countries through the correct choice of policies. But Canada recognizes that developed countries can assist very considerably by providing capital and technical assistance essential for such a solution. This goal can also be encouraged by exploiting the possibilities for an expanding volume of trade among developing countries as well as between these countries and the developed areas of the world."

Correction

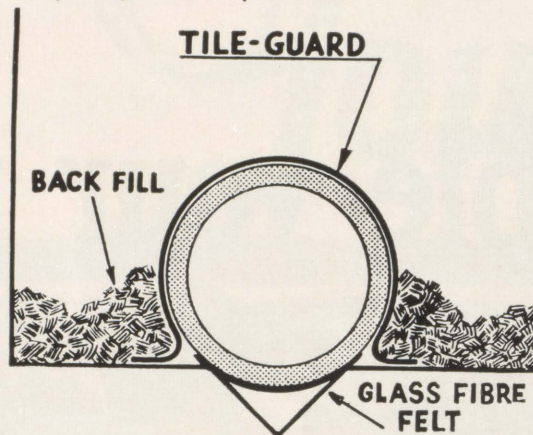
An error crept into the August editorial, where reference was made to the annual deficit of feed grains in Eastern Canada. This line should read "...four million acres of land in Eastern Canada have gone out of use — twice the area needed to produce all of the 80 million bushels brought in each year from the west."

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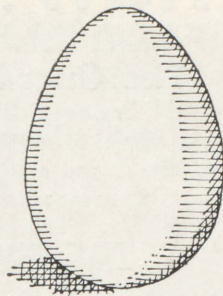
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